

Progress on the Mystery of Productivity: A Review Article on the OECD Report *The Future of Productivity*

Don Drummond
*Queen's University*¹

ABSTRACT

For decades the OECD has been a leader in the research of productivity and the development of policy ideas to strengthen it. Yet many countries, including Canada, that have implemented the OECD paradigm reasonably faithfully have not experienced strong productivity. Indeed, many OECD members, again including Canada, have experienced a decline in multi-factor productivity over the past 15 years. The record makes it fair to conclude that the OECD has not cracked the mysteries of productivity. So when the organization releases a new study under the bold title of *The Future of Productivity* certain questions are natural. Does the OECD have new and different perspectives to add? Will these perspectives lead to policy ideas that will succeed in raising productivity growth among member countries? The answer to the first question is a resounding yes. The OECD flags, quite appropriately, that the research needs to go beyond the so-called policy fundamentals and examine the behavior of firms, particularly why some firms so badly lag others in productivity. The OECD also now places much more emphasis on how human talent is allocated to jobs. This also seems promising. Whether such new directions of research will finally crack the mystery of productivity remains to be seen. But the OECD research program is heading in the right direction and warrants close attention.

THE OECD HAS RECENTLY PUBLISHED a new booklet (weighing in at 100 pages including appendices) entitled *The Future of Productivity*.² The emphatic title may give the sense that the OECD has finally figured out the mysteries of productivity and how to generate it. After all, “the OECD has been at the frontier of productivity research for many years.” That statement is made in the booklet by no less an authority than the OECD itself. The title and the claim

prepped me for a cynical read of the booklet because despite all the OECD’s research, I do not think their work to date has shown a mastery of the subject. The proof as they say is “in the pudding” as many countries, including Canada, have followed the so-called OECD paradigm and recorded weak productivity growth that has yielded modest economic growth that has been neither inclusive nor environmentally sustainable.

1 The author is the Stauffer-Dunning Fellow in the School of Policy Studies at Queen’s University and a member of the Board of Directors of the Centre for the Study of Living Standards. Email: don.drummond@queensu.ca.

2 The publication, released in 2015, is freely accessible at <http://www.oecd.org/economy/the-future-of-productivity.htm>.

My reading of the OECD's latest publication on productivity evoked one central question – do they have anything new and different to offer? The answer can be as emphatic as the publication's title. Yes. The OECD has broadened and deepened their analysis and policy recommendations to strengthen productivity. The booklet does not pretend to have all the answers on productivity. Rather, it poses the right questions and offers a lot of conjectures, some tested and others to be tested. The OECD paradigm of strong framework policies remains the bedrock for productivity but the analysis has been extended to more insightful work at the firm level and on labour markets.

It is refreshing to read that “this report marks the start of a renewed and concentrated effort across the OECD to put productivity at the heart of (the OECD's) work on strong, inclusive and sustainable growth” (page 3). Now we are talking. The booklet is well worth reading and should encourage all interested in productivity to follow the OECD's new research agenda.

The “OECD Paradigm” Seemed Like a Necessary but Not Sufficient Condition for Stronger Productivity Growth

Over the past few decades the OECD's research and policy advice on productivity has basically amounted to a belief that if a level, competitive playing field is created, productivity growth will come. Hence the recommendations to establish policies such as low, stable inflation, modest public debt burdens, free trade, competitive markets, competitive tax rates (especially on capital), and support for education along with other framework measures. Many countries in the OECD adopted many if not all of these policies. Yet, as *The Future of Productivity* documents, productivity growth in the OECD area has not been strong and in many countries it was

already slowing well before being hit by the financial crisis and ensuing recession.

Countries did not adopt such framework policies just because the OECD gave such advice. The policies were put in place because they made intuitive sense. And they still do. Yet one cannot shake the conclusion that the results have not been all that individual countries or the OECD hoped for. Canada is a prime example. Beginning in the late 1980s federal and provincial governments really cleaned up their act on framework policies. Inflation has been low and steady, public debt burdens have been greatly lowered, external trade has been liberalized through much lower tariffs and removal of other barriers, state intervention and even ownership has been withdrawn in key sectors, the rate of taxation on capital has been slashed and a much higher portion of the population has post-secondary education. To be sure, there remain flaws in the overall policy setting such as internal barriers to trade and a corporate income tax regime that favours small enterprises. These flaws should definitely be addressed. But one cannot shake the feeling that if the extensive actions to date have not spurred strong productivity, completing the agenda won't likely do the trick either.

When an OECD delegation came to Canada several years ago as part of the background research into the Canada Survey, I joked with a member that they must feel uncomfortable coming to Canada when the country has adopted so much of their advice but has little economically to show for it. The member replied that if I thought they felt uncomfortable in Canada, imagine how they felt going to New Zealand. The point is that Canada is not alone in having shifted gears on framework policies quite radically without reaping all the expected benefits. Something seemed to be missing from the policy paradigm.

Firm Behavior and Labour Markets Have Not Received Their Due Share of Attention in the Productivity Puzzle

In 2006, in part as a lark in response to the common assertion that economists never agree on anything, I wrote a short article titled “The Economists’ Manifesto for Curing Ailing Canadian Productivity” (Drummond, 2006). The article rounded up the list of policies most economists agreed would strengthen productivity. It was easy to prepare the list because similar inventories of policy actions appeared in many OECD publications. The focus was on macroeconomic, trade and competition policies.

By 2011, it occurred to me that despite the agreement of economists and many countries having adopted such a policy paradigm, the expected results were not forthcoming. My hypothesis was that if firms were not raising productivity in the face of a competitive playing field, then maybe the issue was with firm behavior rather than just the policy setting. Indeed, the last sentence of the abstract of my article on this issue entitled “Confessions of a Serial Productivity Researcher” (Drummond, 2011) stated that “a research agenda with a focus on firm behaviour from a micro approach is needed to obtain a deeper understanding of Canada’s terrible productivity record and to develop actions to boost productivity growth.” Around the same time I became convinced that any study of the firm had to include analysis of how effectively workers are being deployed. Further, one needed to step back and analyze how skills were being generated and whether they matched what the labour market required (see, for example, Drummond, 2014).

This analysis of productivity policies and the suggestion that more attention should be paid to firm behavior and labour markets was in the context of Canada. However, the findings could be applied to almost all OECD countries.

The OECD’s *The Future of Productivity* Satisfies Great Expectations

I provide the above context of the evolution of my thinking on productivity policies to explain my expectations and aspirations for the OECD’s latest document on productivity. Does it broaden and deepen the analysis and policy advice beyond the traditional approach of focusing on macroeconomic, trade and competition policies? Check. Does it look more intently at behavior at the firm level? Check. Does it recognize the critical importance of well-functioning labour markets? Check. In short, from my perspective, there is much to like here.

The OECD’s heightened interest at the firm level flows from the observation that the growth rate of productivity for globally advanced companies has not slowed. The conclusion from this observation is that the overall productivity growth slowdown is “a slowing of the pace at which innovations spread throughout the economy: a breakdown of the diffusion machine” (page 12). This conclusion aligns well with work of the Centre for the Study of Living Standards which has consistently emphasized that the widespread adoption of innovations is as important as the innovations themselves (see, for example, CSLS, 2005). The diffusion process then needs to be improved so that firms that are national leaders come closer to the global standard and laggards within a country come closer to the productivity level of the national leaders.

The OECD report *The Future of Productivity* also concludes that “there is much scope to boost productivity and reduce inequality simply by more effectively allocating human talent to jobs” (page 12). As such, better functioning labour markets address two of the three goals the OECD sets out: stronger productivity growth and more inclusive benefits of growth. Environmental sustainability is not addressed in the report. The link from skill matching to ine-

quality flows from the observation that skilled workers whose skills are well matched with their jobs tend to have steady employment with high and growing incomes whereas workers whose skills are not aligned with their jobs tend to end up in low-paying and stagnant jobs, firms and sectors.

Perhaps the greatest understatement of the report is that “it is important to recognize that currently available firm-level data sources are not ideal, particularly for analysis of the productivity dynamics of laggard firms” (page 13). In Canada, firm-level data were until recently only available to a small number of Statistics Canada employees. Efforts are being made to improve data access but there are still shortcomings in documentation and many data entries are blank or aggregated to protect confidentiality. Due to restricted access in the past, few researchers have developed the interest or even capability of working in this domain. The Network to Study Productivity in Canada from a Firm-Level Perspective is addressing the situation, but it will take time before policy-relevant research results are available.³ Other countries and hence the OECD face the same problems and this will limit the OECD’s chances of deriving sound policy advice from research on firm behavior.

The OECD’s Tentative Recipe for Stronger, More Inclusive Economic Growth

The OECD has not in any way abandoned its call for sound macroeconomic, trade and competition policy nor its traditional calls for investments in education and basic research. However, these are by now well known to readers of OECD documents so will not be covered here. Rather, the focus will be on elements dealing more specifically with the diffusion of innovations and skills matching – the parts that

complement the policy elements that are necessary but on their own do not seem sufficient.

The following is a partial list of ideas *The Future of Productivity* presents to bolster productivity growth:

- The diffusion of innovations at the global frontier is supported not only by trade openness but as well by global value chains and the international mobility of skilled labour;
- There should be few barriers to firm entry;
- At the other end of the spectrum, judicial systems and bankruptcy laws must facilitate firm exits so resources do not get trapped in inefficient firms;
- Managerial capital is critical for supporting innovation, diffusion of innovation and effective skill matching;
- Effective liaison between government and universities on research can support diffusion of innovation to smaller firms that might not otherwise have access to required physical or knowledge capital;
- Barriers to worker mobility should be reduced. This extends to aspects such as high transaction costs for buying property; and
- Support for education should encompass lifelong learning.

***The Future of Productivity* Leaves Some Open Questions for Further Research**

The OECD opens the door to a debate over the relative merits of seemingly attractive framework policies and more direct government intervention. Support for research and development is a good example. *The Future of Productivity* sets out some criteria for effective R&D tax incentive schemes. But at the same time the OECD notes that with recent program design improvements, “schemes that provide direct

3 For a description of this initiative, see Drummond, Ryan and Veall (2013) and go to <https://www.economics.mcmaster.ca/research/productivity>

government support to R&D (now show) clearer evidence of a positive association with innovation” (page 54). It is also noted that “higher public spending on basic research enhances the ability of economies to learn from new innovations at the global frontier” (page 55). This captures the flavour of the sentiment that it may not be sufficient to create a level competitive field. More direct policy intervention may be in order to get strong productivity effects.

The work on skills matching will hopefully broaden and become more sophisticated. In *The Future of Productivity* skills mismatches are crudely approximated by the sum of the percentage of workers who perceive they are under-skilled and over-skilled for their jobs. While an informative singular indicator, there is much more to skills matching. There needs to be a better understanding of why education institutions are not providing the required levels of education and, if that is the case, why firms aren’t filling the gap with training. It also needs to be understood why firm managers are not changing the nature of jobs to better take advantage of highly skilled workers. Is there a market failure of information or a management failure?

Tempting to See How’s One’s Country Stacks Up Against the OECD’s Productivity Recipe

I imagine most readers will be tempted to try to assess how their own country does against the criteria the OECD sets out for stronger, more inclusive economic growth based upon productivity. In particular, there may be interest in seeing whether the OECD has come up with some silver bullets to address a country’s productivity malaise. Such an endeavour will undoubtedly be met with frustration because *The Future of Productivity* has little dialogue around particular countries. Some data are contained in the appendices but for many countries they are

incomplete. Hopefully the frustration over the difficulty of doing country assessments at this time will encourage readers to stay tuned to the OECD’s future research efforts.

Naturally I tried to determine what the OECD had to say, explicitly or implicitly, about what Canada should do to improve productivity growth and make the ensuing economic growth more inclusive. The OECD presents Canada’s average annual growth in multi-factor productivity as 0.3 per cent from 1990-2000 and then it declined at an average annual pace of -0.3 per cent from 2000-2007 and -0.8 per cent from 2007-2013 (page 84). This is one of the poorer performances among OECD countries. So it seems reasonable to conjecture that Canada must do badly on key measures the OECD identifies as important drivers of productivity. Yet a few silver bullets stand out.

One silver bullet is Canada’s low rate of participation in global value chains. This is measured as the “sum of imported inputs in a country’s exports (backward) and of its exports used as inputs in other countries’ exports (forward)” (page 42). Among OECD countries, Canada has the highest trade with countries on the global frontier, but the third lowest participation in global value chains (pages 41 and 42). So our firms do not play well with others. Another sign of trouble is the observation that Canada has the second longest waiting time to obtain a building permit, which in the OECD paradigm impedes labour mobility and worsens skills matching.

Yet for each weakness in Canada’s drivers of productivity, there seems to be a strength. Canada scores high in investment in knowledge-based capital. It has relatively low bankruptcy costs. And it has the second least severe skills mismatching. This is interesting because there has been a great amount of debate in Canada over recent years about mismatching in the labour market. Employers have complained

loudly they cannot recruit the skilled workers they need. At least anecdotally there are many stories of graduates of post-secondary education working in domains not closely related to their education and receiving modest pay (see, for example, Drummond 2015). This begs the question of whether things are even worse in other countries or is the OECD's simplistic measure of skills mismatching wanting in important respects. Either way, it seems clear that Canada could do a better job of skills matching. But this would require a host of actions on the part of government, business, education institutions and students that are not set out in *The Future of Productivity*.

Answers to Canada's productivity malaise do not leap out from the pages of *The Future of Productivity*. The same could be said for many other countries. On the one hand, this is disappointing and opens the door to scepticism that the OECD has not identified the keys to productivity performance even with this broader, deeper approach. But on the other hand it makes one anxious to see further OECD research.

The OECD Seems Headed in the Right Direction on Productivity Research and Policy Advice

The Future of Productivity reveals some promising extensions to the OECD's thinking on productivity. The focus on sound macroeconomic, trade and competition policies with support for research and education remain the bedrock. However, the OECD now goes further and analyzes how policy can influence firm

behavior to enhance the diffusion of innovations and improve skills matching.

The result is said to be stronger, more inclusive growth. There is insufficient evidence in this booklet to give confidence that the OECD has identified both the necessary and sufficient conditions to improve productivity. However, the organization seems to be headed down the right path and everyone interested in strong, inclusive, sustainable growth is well advised to follow the OECD's subsequent work.

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